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Case Report

A Rare Case of Bowen's Disease in a Young Female

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ABSTRACT

Bowen's disease is a rare, persistent, progressive, intra-epithelial carcinoma, 8% of which will develop into an invasive squamous cell carcinoma. Although it can present in individuals of any age, Presentation in individuals under 30 years of age is extremely rare. Approximately 72% of cases, it is found on sun-exposed surfaces such as the head, neck, and hands. Mucosal surfaces and the nail bed are also commonly involved. We would like to report this case for its rarity in the age group and the site of occurrence.

Key words: Bowen's disease, pagetoid cells, wide surgical excision.

INTRODUCTION

Bowen's disease is an in situ squamous cell carcinoma, commonly located on the lower limbs and on the head and neck, often presents as an asymptomatic, erythematous, well-demarcated, scaly patch or plaque. It tends to be slowly enlarging, and usually has a fairly irregular border. Treatment options are topical 5-fluorouracil, cryotherapy or surgical excision. A wide excision is to be done to prevent invasive malignant tumor.

CASE REPORT

35 year old female attended skin OPD with complaints of asymptomatic, raised skin lesion over right flank for the past twelve years, with history of itching for the past 6 months. On local examination a solitary, localised, well defined, erythematous, thin scaly plaque of 6×4 cm, studded with few coalescing papules are noted. Clinical suspicion of Bowen's disease was made and with patient's consent, biopsy was taken and sent for histopathological examination.

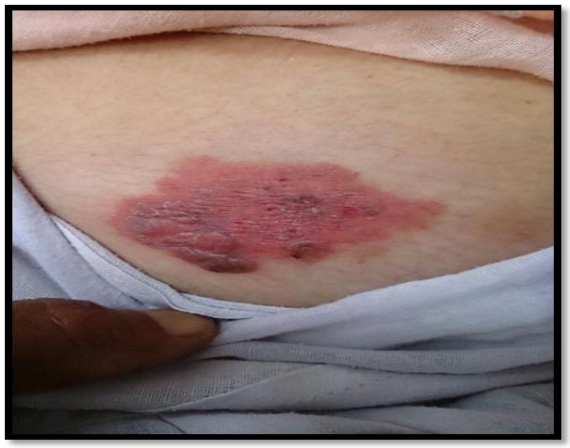

Figure 1: solitary, localised, well defined, erythematous, thin scaly plaque of 6×4 cm, studded with few coalescing papules.

Microscopically, epidermis showed moderate hyperkeratosis, hypergranulosis, irregular acanthosis with blunted and thickened rete pegs. There was complete disarray of spinous cells in the full thickness of stratum spinosum with marked nuclear pleomorphism. Focal dyskeratotic cells showing individual cell keratinization with atypical hyperchromatic nucleus surrounded by clear cytoplasm, so called pagetoid cells were dispersed throughout full thickness of the epidermis. There was no invasion of the basement membrane. The dermis shows chronic inflammatory infiltrates.

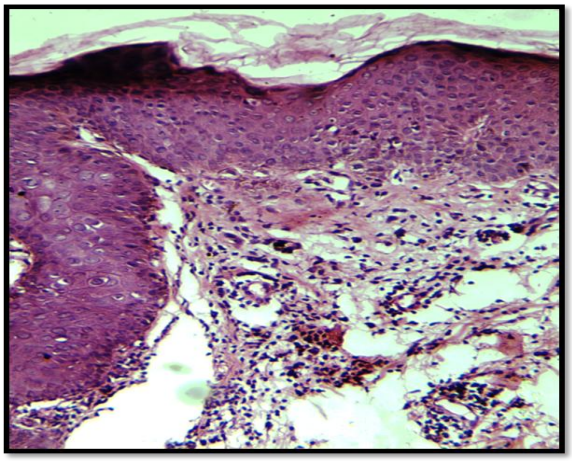

Figure 2 (20x H and E): showing "windblown appearance" involving the epidermis with lymphocytic infiltrate in the dermis.

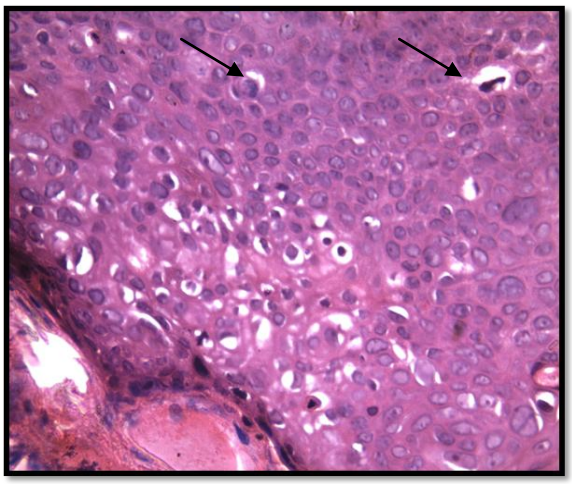

Figure 3 (40x H and E): showing mitotic figure (arrow) and individual cell keratanization (arrow) in the epidermis.

DISCUSSION

Bowen's disease designates squamous cell carcinoma in situ, which was first described in 1912 by John T Bowen. BD is very common in the Caucasian population with an incidence of 1.42 per 1000 in some populations. [] It can present in individuals of any age, typically found in elderly patients, with a mean age of diagnosis exceeding 60 years. [2] Presentation in individuals under 30 years of age is extremely rare. It is commonly located on the lower limbs and on the head and neck, but also seen subungual or periungual, palmar, genital and perianal areas. Usually BD is a solitary lesion, but in 10% to 20% it occurs at multiple sites. [3,4] Several etiological factors of BD have been reported, such as irradiation (ultraviolet irradiation, radiotherapy, photochemo-therapy), carcinogens (e.g., arsenic), immunosuppression (e.g., after organ transplantation, AIDS), viral (strong association of perianal and genital lesions with HPV; 47% of acral and 24% of nonacral extragenital BD contain HPV genome) and some others like chronic injury or dermatoses. [4,5] Bowen's disease often presents as an asymptomatic, erythematous, well-demarcated, scaly patch or plaque. It tends to be slowly enlarging, and usually has a fairly irregular border. Lesions may become hyperkeratotic, crusted, fissured or ulcerated, and can occasionally be pigmented, especially when found in the genital region and the nails. [6] The risk of progression into an invasive carcinoma is 3% to 5% in extragenital lesions and about 10% in genital lesions (also known as erythroplasia of Queyrat). [7,8] Epidermis in Bowen's disease will show hyperkeratosis and parakeratosis, marked acanthosis with elongation and thickening of the rete ridges. The atypia spans the full thickness of the epidermis, with the keratinocytes demonstrating intense mitotic activity,

pleomorphism, and greatly enlarged nuclei along with loss of maturity and polarity, giving the epidermis a disordered or "windblown" appearance. Surgical excision is the therapy of choice for Bowen's disease lesions. A 5 mm surgical margin is advisable with a depth to subcutaneous fat for removal of a possible underlying carcinoma. [9]

In our case plaque was present over right flank, excised in-toto and primary closure was done with no intraoperative and postoperative complications and patient is followed up regularly.

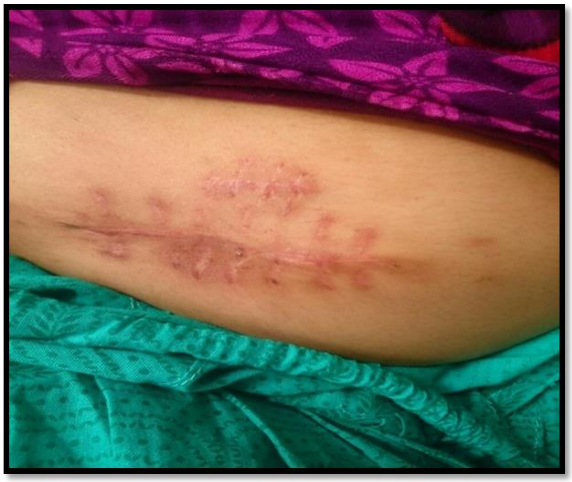

Figure 4: postoperative healthy scar.

CONCLUSION

We would like to highlight this case for its rarity at the site of occurrence in a young female.

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